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# HIGH RESOLUTION SPECTROSCOPY OF THE 11.3um EMISSION BAND

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High resolution spectra of the 11.3um emission band in M82 and NGC 7027 have been obtained using the Univ. of Texas IR echelle spectrometer on the IRTF in April 1988. The spectral resolution was 0.004 um, with coverage from 11.0um to 11.6um. Spectra were measured at ten positions along a 10" long slit.

Analysis of the data is still in progress, but initial results show no clear evidence of narrow structure within the feature. The analysis will involve comparison of the observed spectra to laboratory and predicted spectra of PAH's and QCC's to determine which may be responsible for the emission. The spectra will be examined with a goal of determining whether the emission is caused by molecular or solid state material.

The data will also be examined for evidence of variations in the shape and strength of the 11.3um feature with position on the sky. In NGC 7027 the 10" long slit went across the edge of the ionized nebulae, allowing comparison of emission from both ionized and neutral regions.